

Leukemia*

Symptoms and Diagnosis

During the early stages of leukemia, there may be no symptoms. Many of the symptoms of leukemia don't become apparent until a large number of normal blood cells are crowded out by leukemia cells. In chronic leukemia, symptoms develop gradually and are generally not as severe as in acute leukemia. Chronic leukemia is usually found during a routine doctor's exam before symptoms are present. When symptoms appear, they generally are mild at first and gradually get worse, but sometimes they don't worsen until many years after an initial diagnosis. In acute leukemia, symptoms usually appear and get worse quickly. People with this disease usually go to their doctor because they feel sick.

People with leukemia may have very high levels of white blood cells, but because the cells are abnormal, they are unable to fight infection. Therefore, patients may develop frequent fevers or infections. A shortage of red blood cells, called anemia, can cause a person to feel tired. Not having enough blood platelets may cause a person to bleed and bruise easily. Some symptoms depend on where leukemia cells collect in the body. Leukemia cells can collect in many different tissues and organs, such as the digestive tract, kidneys, lungs, lymph nodes, or other parts of the body, including the eyes, brain, and testicles.

Other common symptoms of leukemia include headache, weight loss, pain in the bones or joints, swelling or discomfort in the abdomen (from an enlarged spleen), and swollen lymph nodes, especially in the neck or armpit. Symptoms of acute leukemia may include vomiting, confusion, loss of muscle control, and seizures.

To find the cause of leukemia symptoms, the doctor will ask about medical history and conduct a physical exam. During the exam, the doctor will check for signs of disease such as lumps, swelling in the lymph nodes, spleen, and liver, or anything else that seems unusual. The doctor will need to do blood tests that check the levels and types of blood cells and look for changes in the shape of blood cells. The doctor also may look at certain factors in the blood to see if leukemia has affected other organs such as the liver or kidneys.

Even if blood tests suggest leukemia, the doctor may look for signs of leukemia in the bone marrow by doing a biopsy before making a diagnosis. A biopsy is a procedure where a small amount of bone marrow is removed from a bone. A pathologist examines the sample under a microscope to look for abnormal cells. Chest x-rays, computed tomography (CT) scans, and ultrasounds are tests used to determine if leukemia has spread from the bone marrow. These tests produce pictures of the inside of the body. With these tests, the doctor looks for abnormalities such as enlarged organs or signs of infection.

NIHSeniorHealth.gov 02/10